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| APPLICATION NO. | I | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------|---------|-------------|-------------------------|---------------------|------------------|
| 09/838,640 | • | 04/19/2001 | Edward Vincent Louis | CE08636R | 9186 |
| 22917 | 7590 | 04/30/2004 | | EXAMINER | |
| MOTORO) | | | NGUYEN, KHANH V | | |
| 1303 EAST IL01/3RD | ALGON | QUIN ROAD | ART UNIT | PAPER NUMBER | |
| SCHAUMB | URG, IL | 60196 | 2817 | | |
| | | | DATE MAILED: 04/30/2004 | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| λ | | Application No. | Applicant(s) | | | | |
|--|---|--|--|--|--|--|--|
| • | _ | 09/838,640 | LOUIS ET AL. | | | | |
| Office Action Summary | | Examiner | Art Unit | | | | |
| | | Khanh V. Nguyen | 2817 | | | | |
| Period for | The MAILING DATE of this communication app Reply | ears on the cover sheet with the c | orrespondence address | | | | |
| THE MA - Extension after State - If the period - If NO period - Failure - Any rep | RTENED STATUTORY PERIOD FOR REPLY AILING DATE OF THIS COMMUNICATION. ons of time may be available under the provisions of 37 CFR 1.13 K (6) MONTHS from the mailing date of this communication. oriod for reply specified above is less than thirty (30) days, a reply period for reply is specified above, the maximum statutory period we to reply within the set or extended period for reply will, by statute, by received by the Office later than three months after the mailing patent term adjustment. See 37 CFR 1.704(b). | of(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days ill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE | nely filed s will be considered timely. the mailing date of this communication. O (35 U.S.C. § 133). | | | | |
| Status | | | | | | | |
| 1)⊠ R | esponsive to communication(s) filed on 19 Ag | <u>oril 2001</u> . | | | | | |
| 2a) ☐ T | This action is FINAL . 2b) This action is non-final. | | | | | | |
| • | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. | | | | | | |
| Disposition | n of Claims | | | | | | |
| 4)⊠ C | 4)⊠ Claim(s) <u>1-19</u> is/are pending in the application. | | | | | | |
| 48 | 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | |
| 5)□ C | ☐ Claim(s) is/are allowed. ☑ Claim(s) <u>1,2,6-9 and 13-19</u> is/are rejected. | | | | | | |
| 6)⊠ C | | | | | | | |
| · | laim(s) 3-5 and 10-12 is/are objected to. | | | | | | |
| 8)∐ C | laim(s) are subject to restriction and/or | election requirement. | | | | | |
| Application | n Papers | | | | | | |
| 9)∐ TI | ne specification is objected to by the Examine | r. | | | | | |
| 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. | | | | | | | |
| Α | pplicant may not request that any objection to the o | drawing(s) be held in abeyance. See | e 37 CFR 1.85(a). | | | | |
| | eplacement drawing sheet(s) including the correctine oath or declaration is objected to by the Ex | | • • | | | | |
| , | . , | animor. Note the attached Office | Action of format 10 102. | | | | |
| - | der 35 U.S.C. § 119 | | (1) (0 | | | | |
| • | cknowledgment is made of a claim for foreign | phority under 35 U.S.C. § 119(a) | -(d) or (f). | | | | |
| • | All b) Some * c) None of: Certified copies of the priority documents | have been received | | | | | |
| | . Certified copies of the priority documents | | on No | | | | |
| | Copies of the certified copies of the prior | | | | | | |
| | application from the International Bureau | - - | ŭ | | | | |
| * See the attached detailed Office action for a list of the certified copies not received. | | | | | | | |
| | | | | | | | |
| Attach | | | | | | | |
| Attachment(s |) of References Cited (PTO-892) | 4) 🔲 Interview Summary | (PTO-413) | | | | |
| 2) Notice (3) Informa | of Draftsperson's Patent Drawing Review (PTO-948) tion Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | Paper No(s)/Mail Da 5) Notice of Informal Pa | ite atent Application (PTO-152) | | | | |
| Paper N | lo(s)/Mail Date <u>4</u> . | 6) Other: | | | | | |

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DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 6-9, 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cova et al. (6,104,241) in view of Funada et al (6,417,731).

The different between the claimed invention and Cova et al. (Figs. 1 or 2) is the type of detector used. Applicant's invention uses peak power detector while Cova et al. use distortion detector. Cova et al. disclose a feedforward amplifier comprising: distortion loop including gain (G1), phase (Ø) a main amplifier (A1) and a distortion cancellation loop including gain and phase (Pred) and a error amplifier (A2) and DISTORTION DETECTOR and DSP CONTROLLER for controlling the gain and phase.

Funada et al. (Fig. 1) discloses the use of peak detecting means, see col. 20 lines 35-54).

Accordingly, it would have been obvious in view of the reference, taken as a whole, to have modified the Cova et al. circuit to have included a peak power detector as taught by Funada et al. Such a modification would have imparted the advantageous benefit of limiting only the peak power is utilized for controlling the amplitude and phase input, thereby suggesting the obviousness of such a modification.

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Allowable Subject Matter

Claims 3-5, 10-12 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

Claims 3-5, 10-12 are allowed over the prior art because none of the prior art disclosed or suggested showing the particular structure and/or operation recited in these claims namely:

Claims 3-5, 10-12 call for, among others, a schematic of the control circuit including a mixer, a filter, a detector and a controller having the function thereof.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional references (Lieu (5,023,565); Bar-David et al. (6,091,297)); Mucenieks (6,359,508) show further analogous prior art circuitry.

This art is deemed relevant and should be carefully reviews before any amendment is filed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh V. Nguyen whose telephone number is (571) 272-1767. The examiner can normally be reached from 8:00 AM-3:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571) 272-1769. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service at (703) 872-9317.

INKD)

04/19/04

Nguyen, Khanh Dan

Group 2800, Art Unit 2817